

a lens inserted and fixed in said first casing hole from said first casing end of said casing, and

*Conold  
C2*  
a ferrule with an optical fiber embedded therein, said ferrule having a slant polished first ferrule end and a second ferrule end and an alignment groove fitting said alignment rail aligning said slant polished first ferrule end with said lens, said ferrule being inserted and fixed in said second casing hole from said second casing end of said casing using said rail and groove so that a given distance and alignment is defined between said first ferrule end of said ferrule and said lens and that said second ferrule end of said ferrule projects from said second casing end of said casing; and

a sleeve having a first sleeve end fixed to said holder and a second sleeve end to which said first casing end of said casing is fixedly inserted and having a sleeve axis;

said first end of said ferrule being positioned so that a portion of said first ferrule end of said ferrule radially farthest from said first casing hole axis of said first casing hole becomes axially farthest from said lens.

---

15. (New) A laser diode module, comprising:

*C2*  
a laser diode assembly comprising a laser diode and a holder with said diode fixed relative to said holder and said holder having a holder axis;

a lens-fiber assembly including a casing having a first casing end, a second casing end, a first casing hole having a first casing hole diameter and a first casing hole axis, and a second casing hole having a second casing hole diameter smaller than said first casing hole diameter and a second casing hole axis offset from said first casing hole axis, said second casing hole communicating with said first casing hole, a lens inserted and fixed in said first casing hole from said first casing end of said casing, and a ferrule with an optical fiber embedded therein, said ferrule having a slant polished first ferrule end and a second ferrule end, said ferrule being inserted and fixed in said second casing hole from said second casing end of said casing so that a given distance is defined between said first ferrule end of said ferrule and said lens and that said second ferrule end of said ferrule projects from said second casing end of said casing; and

a sleeve having a first sleeve end fixed to said holder and a second sleeve end to which said first casing end of said casing is fixedly inserted and having a sleeve axis;

said first end of said ferrule being positioned so that a portion of said first ferrule end of said ferrule radially farthest from said first casing hole axis of said first casing hole becomes axially farthest from said lens.

---